

INDUSTRIAL HERITAGE TOWARDS SUSTAINABILITY

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Summary

This contribution deals with the issue of industrial heritage and its quality for re-use. The issue will be discussing in urban, architectural, constructional, environmental, social and cultural points of view. I will show the possibilities for sustainable development.

Keywords: Industrial heritage, re-development, brownfields

1 Introduction

During industrial revolution period the Czech Republic was a part of Austria-Hungary monarchy. The Czech Republic was the most industrial part of monarchy. That's the reason way there are a lot of old industrial building in Czech region. Nowadays these plots are called brownfields. It means there not more in use. For people lived around brownfields are just poor bad-looking place. In this paper I would like to show them as a places with high potencial for re-use. There are important parts of Czech history. Czech industry during industrial period was world's top. We can be proud of.

I will discuss Czech industrial heritage from different points of view. Mainly these themes will be discuss urban context, urban quality, architectural and construction quality, environmental positives, cultural value, social connections.

2 Qualities of industrial heritage

2.1 Urban Context

Industrial buildings are in two main urban positions. The first position is in the human settlements. In the past were industrial buildings built up on periphery of the cities. Due to fact that industry makes the city growth there are now very often in central part of the cities. This makes advantage for re-use these building because nowadays there is again interest in traditional city structure. It seems that city urbanism in nineteen century was very liveable. Industrial buildings from industrial revolution period are part of this urban system.

The second position is in a landscape. These industrial buildings are already part of landscape. There make view dominant, orientation point and landscape character. These objects offer natural visibility position for new mainly touristic project. There are landmarks.

2.2 Urban Quality

There are precisely designed areas as well loosely constructed. Both have specific quality for re-use. In precisely designed areas we can find archetypal elements as alley, park and yards. On the other hand there are also industrial complex building spontaneously. These places are full of chimneys, factory railways etc. What's same for both type situated in the cities is large room for greenery. Both marks greenery and specific industrial character make these places characteristic. Specific atmosphere could create identifying mark.

2.3 Architectural Quality

There are three basic types of these buildings. The first one is single-purpose buildings. It means that architecture is just covering for special technology. These buildings have very characteristic architecture adapted for one specific use. It's quite difficult find new use for these buildings. On the other hands they offer identifying architecture for new projects accommodate in.

The second one is all-purpose buildings. These buildings were designed as flexible to accommodate changing technologies and using. This type of building is the best ready for re-use. It offers inside large open space. Typically are constructed as massive masonry envelope, vertical iron or cast iron columns and horizontal timber structure supporting flooring. In the end of nineteenth century started to appear concrete construction firstly in industrial buildings. This is also important moment in process of designing buildings. At this moment big construction engineering offices were established. Designing this kind of buildings need special skills and knowledge.

The third one is combined-purpose buildings. Good example of this type is typical Czech industrial branch. There hundreds of breweries around the Czech Republic. Brewery is typical combine-purpose building. There specific spaces as well flexible spaces.

Architecture of industrial buildings wasn't just strict purpose built. The buildings were designed with representative visage. They owners were new social level. They want to establish their social prestige. Among industrial buildings we can find very elegant and posh architecture.

2.4 Construction Quality

As I already mention new building technologies were firstly use in the industry. Owners of factories were people with open mind. Owners were people who believe in progress. That is the reason why iron and concrete widely firstly use in industrial buildings.

2.5 Environmental positives

I would like to discuss environmental positives in cradle-to-cradle theory. This is new line in eco-design. In traditional life cycle assessment is supposed cradle-to-grave cycle. The cradle-to-cradle theory called for re-using instead recycling. Re-using existing building structure is the first potential way how to save energy. Using existing building structure is the good way how to save real value of the construction. In this approach energy and material save in construction is protect.

Another positive in re-using existing industrial buildings instead of new development is saving earth plots. Earth plots are non-renewable source. As non-renewable source we have to protect non-urbanized ground.

Of course operating energy efficiency is also important. Saving operating energy in re-using buildings asked to smart solution. It is possible to reach low energy or even passive standard level.

Industrial buildings were progressive in their time of birth. It is appropriate to use contemporary advanced solution. It is continue in their progressive essence.

2.6 Cultural value

Mostly industrial buildings are not listed as cultural heritage. This fact doesn't mean that the industrial buildings don't have cultural and historical value. It is quite important make re-using carefully. Protect their authenticity. Just like authentic witness of past ages they have their cultural value.

They contain place memory. They are silent witnesses of past generation who works and lived in. We can't easily see them but we can feel them. They make characteristic spirit of these places.

Of course the name of old fabrics are orientation and significant mark for people. The names are still in memories. They are symbols of prosperity and good old days.

Industry was full value part of Czech history. In European context it could be Czech highlight. Let's make industrial vestiges in Czech landscape visible and liveable.

Origin names and characteristic spirit of these places could be added value for new project. Well sold in marketing branch.

2.7 Social connections

Nowadays there are a lot of un-use factories. These brownfields are problematic parts of cities and landscape. Re-using these places helps solved problems with them. It cultivates problematic places. New projects developed in brownfields site are mostly well adopted by public. They re-use plots and protect earth and greenery.

3 Conclusion

The basic aspects of sustainability are environmental, social and economical. Re-using industrial heritage balanced all these aspects. It helps protect cultural colourfulness of society and diversity of history. Industrial vestiges are well visible marks in landscape and cities which offer one possibility starting towards sustainability.

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Fig. 1 Brewery in Holešovice, Prague, CZ, 2004
Representative architecture of building from 1897 makes character of preserve central yard.

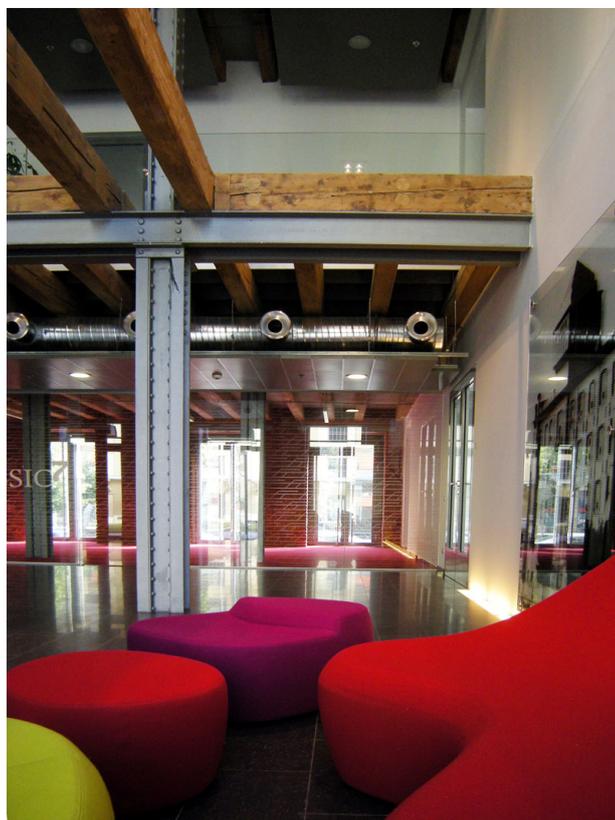


Fig. 2 Mill in Holešovice, Prague, CZ, 2008
Preserve characteristic construction makes specific atmosphere.